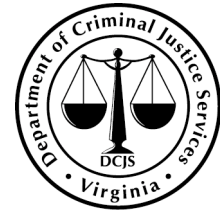


ICJIS Business Case

Executive Summary



What is ICJIS?

The Commonwealth of Virginia's Integrated Criminal Justice Information System (ICJIS) program is an initiative of the Secretary of Public Safety and the Virginia Department of Criminal Justice Services (DCJS). The ICJIS program is a response to the growing need to obtain greater efficiencies in the criminal justice system through improved interagency cooperation and information sharing.

This Executive Summary briefly highlights the detailed information contained in the full ICJIS Business Case. The purpose of the Business Case is to explain the objectives of

the ICJIS program, which is currently in the program planning and requirements analysis phase, and to solicit support from decision-makers and funding sources.

As shown in Figure 1, criminal justice professionals throughout the state, at all levels of government, will benefit from the ICJIS program. The ultimate goal of the program is to increase public safety and confidence by providing criminal justice professionals with all the information required to perform their missions, when and where they need it.

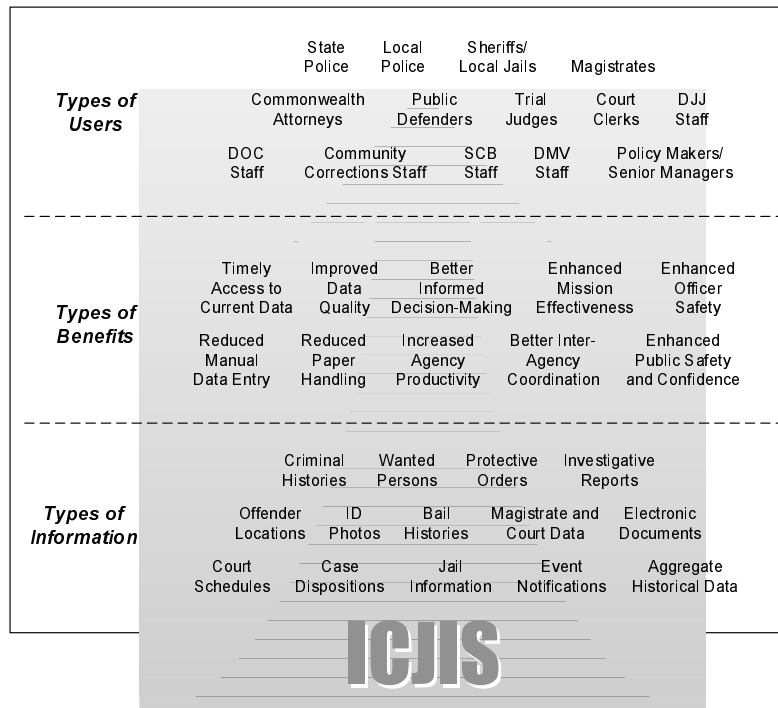


Figure 1. ICJIS will generate many important benefits to a wide range of users

What Problems Are Being Addressed by ICJIS?

To better understand the scope of the information management problem, DCJS identified and analyzed 37 distinct major steps in the processing flow of a typical adult felony case—from investigation of a crime through arrest, prosecution, trial, corrections, and post-corrections activities.

Figure 2 shows just the first 3 of the 37 steps. They are shown here as an example of the approach used in our analysis. The full table, given in the main body of the Business Case, illustrates how the Virginia criminal justice system requires the cooperation of a multitude of people and agencies, crossing many organizational and/or geographic boundaries.

The transition from one step to the next is typically a point at which responsibility for

case processing is passed from one agency to another. It is also a point at which critical information must be passed to, or collected by, the receiving agency from the agencies and steps that have gone before.

For each step, we have identified the most important information inputs and outputs. For each input and output, we have indicated whether that information is currently passed in manual (M), interactive (I), or fully automated (A) form.

Unfortunately, the vast majority of information transfers between agencies are currently performed manually. There are several important and very valuable interactive interfaces. However, there are very few interfaces that qualify as fully automated.

Event	Agencies/Persons	Inputs	Outputs
1. Police investigate crime	Investigating police agency, Other police agencies, Suspects, Victim, Witnesses, Forensics, Others	Evidence (M), Forensics (M), Witness statements (M), Fingerprint matches (M or I), Criminal histories (I), Mugshots (M), DMV information (I), DMV photos (M), Prior police reports (M, I, or A), Police investigative files from other agencies (M)	New police reports (M or I), IBR update (M or I), Updates to local police investigative files or systems (M or I)
2. Probable cause determined; magistrate issues arrest warrant	Magistrate, Investigating police agency, Victim	Verbal complaint (M), Criminal history of suspect (M)	Arrest warrant (I)
3. Local police enter warrant into wanted persons system	Local police agency, VSP	Arrest warrant (M)	Wanted persons record (I)

Figure 2. First 3 of 37 steps in processing of a typical adult felony case

The end result is that the criminal justice community faces several major enterprise-level problems and shortcomings:

- Criminal justice professionals are often forced to perform their missions and make decisions without benefit of all the information potentially useful to them.
- Alternatively, criminal justice professionals are forced to delay their actions until they can gather necessary information using non-digital methods (e.g., by exchanging hardcopy documents, or communicating via telephone, fax, or e-mail).

- Historical and statistical data analyses that would be highly useful to decision-makers and policy analysts are difficult to perform due to lack of access to data aggregated from multiple agencies.

Over the years, Virginia agencies have taken several positive steps to address these problems and shortcomings. Most agencies

The ICJIS Vision

The primary objective of integration is to improve criminal justice processing and decision-making through the elimination of duplicate data entry, access to information that is not otherwise available, and the timely sharing of critical data.

- Often, there are no methods for a criminal justice professional at one agency to promptly learn of a relevant event occurring at another agency except through person-to-person contact.
- Agencies often independently capture the same information, causing redundant effort and opportunities for errors and inconsistencies. In some cases, users at one agency are not even aware of the existence of data they need in other agencies' databases.
- Even when two agencies wish to share related data, they may not be able to easily do so due to lack of enterprise-wide data standards, as well as incompatibilities in agency computer systems.

have vastly improved the level of integration within their own organizations, and many have cooperated to establish some automated interfaces between organizations.

Without a unifying "big picture" view of the problems and solutions, however, there can be little assurance that such independent piecemeal solutions will ultimately tie together cost effectively.

What is needed is a strategic approach that facilitates more fully integrated management of information among all Virginia criminal justice agencies, while at the same time ensuring compatibility with emerging integration standards at the state, federal, and international levels. ICJIS is Virginia's response to these requirements.

What Is the ICJIS Solution to these Problems?

Clearly, if the problems are caused by the absence of an integrated approach to data management, then the solution lies in improving the level of integration in criminal justice data management. The question is how the greater level of integration should be achieved and how to do so in a manner consistent with parallel initiatives in other states and at the national level.

After reviewing the state of the art, ICJIS has adopted a functional model for effective interagency integration proposed in a SEARCH report, "Integration in the Context of Justice Information Systems: A Common Understanding," dated April 2000. SEARCH is The National Consortium for Justice Information and Statistics.

The SEARCH model has been formally endorsed by the National Association of State Information Resource Executives (NASIRE). Virginia is represented in NASIRE by the Secretary of Technology, Donald W. Upson.

The SEARCH/NASIRE model is a cooperative model specifically designed for integration of autonomous information systems maintained by independent agencies. Under this model, there are five fundamental capabilities required to achieve true integration of multi-agency data resources:

- Authorized users should be able to *query* local, regional, statewide, and national databases for all relevant information about a person or case.
- An authorized agency system should be able to *push* information to another agency's system, that it knows will be needed by the receiving agency.

- An authorized agency system should be able to *pull* needed information from systems at other agencies for incorporation into the recipient agency's systems.
- An authorized user at one agency should be able to *subscribe* to a notification service that will automatically *notify* the recipient of events of interest elsewhere in the criminal justice system.
- An authorized agency should be able to *publish* (e.g., by posting to a web site) information regarding cases, events, policies, and actions that may be of interest to other agencies.

DCJS has added one more fundamental integrating capability to the basic model:

- An authorized agency should be able to *assemble* data necessary for aggregate statistical analysis required for policy analysis, program evaluations, or research.

It is not required or expected that all of these functions will be implemented immediately or all at once by every agency system. In fact, one of the most appealing aspects of the SEARCH/NASIRE model is its functional modularity. For example, one agency system may elect to implement some of the functions and defer the rest, while another agency system may choose to implement a different mix of functions.

Some agencies have expressed reluctance to opening up their systems to on-line access by outsiders, due to system performance or security concerns. In such cases, an alternative approach might be to create a subset or copy of an agency database—with sensitive and proprietary data removed—and maintain it on an ICJIS central server for outsiders to query or from which to pull data.

What is the Proposed System Architecture?

The ICJIS program recognizes that the Virginia criminal justice community has built up an extensive legacy of effective business processes and information systems. To achieve the ICJIS vision cost effectively, it would be unnecessary, and unwise, to require wholesale replacement of these existing processes and systems with something entirely new.

In our approach, the ICJIS system should be conceptualized as a network of cooperating but independent agency-controlled information systems. By agreeing to participate in ICJIS, an agency system commits to support certain well defined, mutually agreed-upon interactions with other systems. But each system retains its individual autonomy and control over its own operations, and each system's primary responsibility will continue to be to provide mission support to its own community of users.

In this way, ICJIS may be thought of as a loosely coupled "system of systems" rather than a monolithic system in the traditional sense. This "system of systems" architecture is conceptually illustrated in Figure 3.

The ICJIS architecture includes the following major infrastructure components:

- The *ICJIS Network* is a backbone wide area network (WAN) capable of connecting criminal justice systems and users throughout the state. The preferred approach would be to piggyback on an already established statewide network.
- The *ICJIS Gateways* are interfaces to the ICJIS network that must be installed on each cooperating agency system. These gateways will handle data communications and process agreed-upon ICJIS transactions.

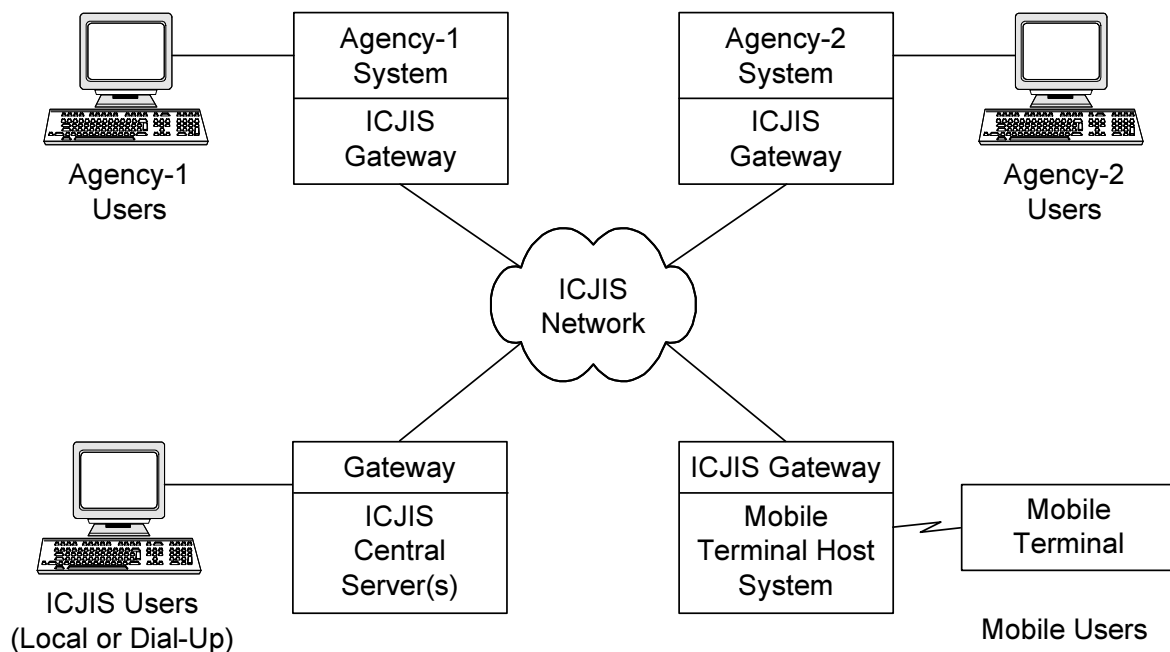


Figure 3. The ICJIS architecture will be a "System of Systems"

ICJIS Business Case Executive Summary

- The *ICJIS User Interfaces* will give authorized on-line users access to ICJIS capabilities. As the vast majority of anticipated ICJIS users are using standard Windows-based PCs, ICJIS recommends that the default user interface be built using web browser technology.
- The *ICJIS Central Server(s)* component is envisioned as a relatively modest suite of computing equipment maintained at some logically central location. It would be used to perform integration functions with multi-agency scope, and to provide ICJIS support services to agency systems.

Within the general framework of this conceptual system architecture, DCJS is analyzing various design alternatives and trade-offs, and will work with stakeholder agencies to cooperatively arrive at cost-effective design and implementation decisions.

Design issues being investigated include, but are not limited to: the location of

databases on the network, data standards and translation services, network message format standards, network security and data privacy, application programming interfaces, and integration with the VCIN network.

How Is the Program Organized?

DCJS created the ICJIS program to serve as a central focal point for planning, facilitating, and coordinating the enterprise-wide integration effort. The ICJIS program advances integration objectives through program management, policy analysis, standards development, data quality improvement, and system engineering.

Figure 4 shows a first-level view of where the ICJIS program fits within the wider DCJS organization. The DCJS, one of 12 agencies within Virginia's Secretariat of Public Safety, is charged with planning and carrying out programs and initiatives to improve the functioning and effectiveness of the criminal justice system as a whole. (§9-170 of the Code of Virginia)

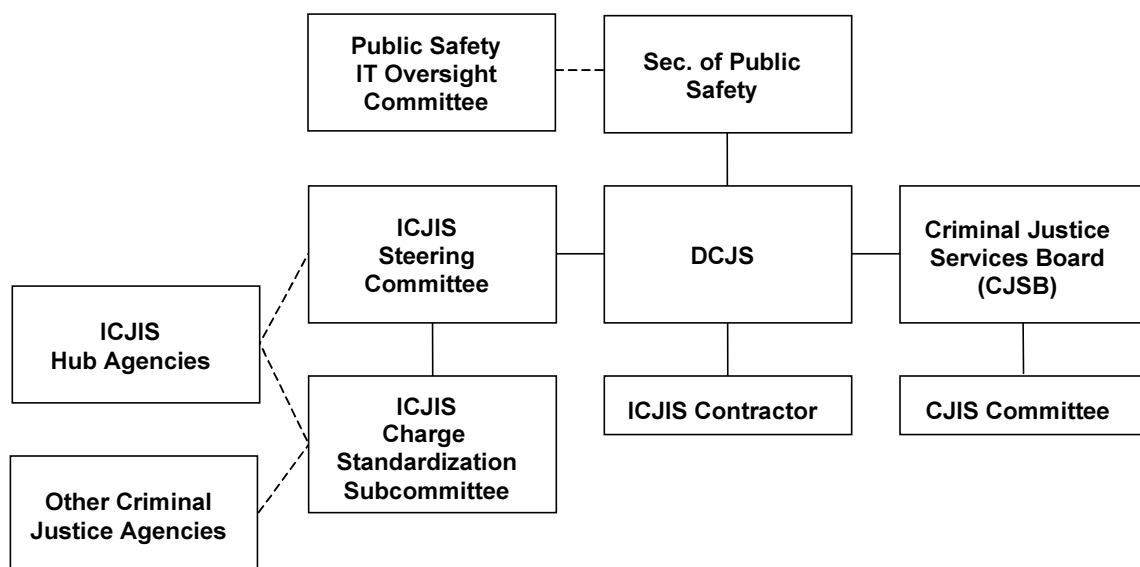


Figure 4. ICJIS Management Structure

ICJIS Business Case Executive Summary

One of the ICJIS program management functions is to acquire, manage, and disburse funds and other resources for ICJIS implementation. When changes to state and local systems and processes are needed to achieve larger integration objectives, the ICJIS program's preferred method of operation is to develop standards and requirements through a cooperative effort involving the affected agencies, then to issue grants to agencies to design and implement the required changes.

To ensure that agency interests are properly represented in major decisions made by the ICJIS program, the program is advised by an interagency ICJIS Steering Committee. The membership includes representatives from ten key stakeholder agencies, including DCJS. The membership of the Steering Committee, and the agencies they represent, are given at the end of this Executive Summary.

What Is the Proposed Implementation Plan?

The ICJIS program is recommending a gradual approach to implementation, spread out in phases over several years, rather than

a one-time "big bang" approach. Although the proposed architecture is not technologically complex, there is enough management complexity associated with planning and coordinating multiple agency integration activities to warrant a "one step at a time" approach.

As shown in Figure 5, the ICJIS implementation plan is organized into a series of two-year phases, to reflect Virginia's biennial budgeting cycle.

The ICJIS program proposes to implement an Initial Operating Capability 1 (IOC-1) during the next biennium (FY02-04), including implementation of a core infrastructure and integration of selected high priority agency systems and users. The ICJIS program proposes to complete implementation of an Initial Operating Capability 2 (IOC-2) during the following biennium (FY04-06), completing the integration of all designated high-priority agency systems and users. Additional systems and capabilities will be considered for integration in the out years beyond FY04-06, as resources permit, leading to achievement of a Full Operating Capability (FOC).

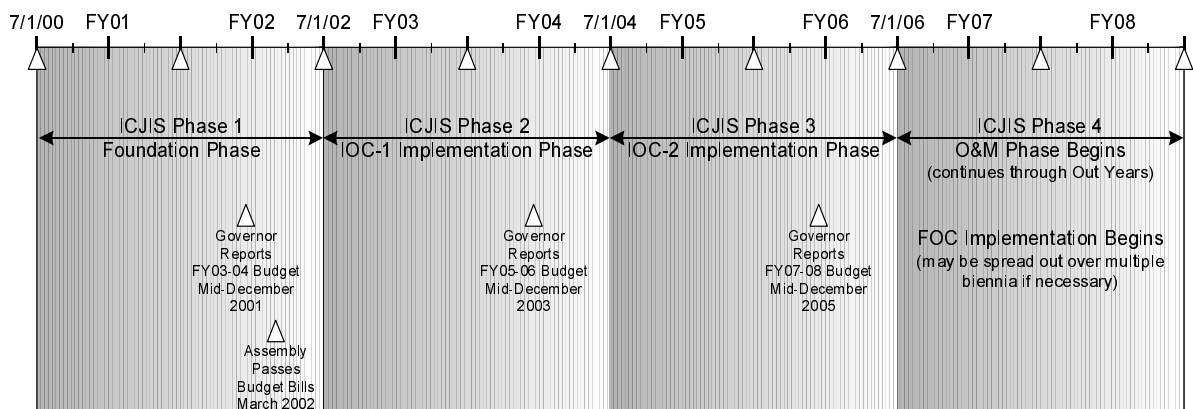


Figure 5. ICJIS phases based on Virginia's two-year budgeting cycle

The current budget biennium (FY00-02) is designated Phase 1, the Foundation Phase, during which the program is laying the technical and programmatic groundwork for successful ICJIS implementation in the subsequent phases.

One of the critical activities of this phase is development of a detailed plan and budget for implementation in time to support the next budgeting cycle. In order to give decision-makers a consolidated view of ICJIS budget requirements, DCJS will coordinate ICJIS-related resource requirements and cost estimates as they are developed. DCJS will then submit a consolidated budget request through appropriate executive channels.

Where Are We Now and What Needs To Be Done Next?

Readers are encouraged to review the full Business Case for detailed supporting program information. The key points documented in the Business Case include:

- ICJIS is an important and timely program, offering mission-critical benefits to the entire Virginia criminal justice community.
- The underlying need for the ICJIS program is substantiated by a report on the Central Criminal Records Exchange, dated January 15, 2001 (<http://www.apa.state.va.us/reports/special/searchreportname.asp>), by the Auditor of Public Accounts. The report makes important recommendations regarding the need for more complete integration of criminal justice systems.
- The ICJIS program has a realistic technical approach and a realistic plan for realizing the ICJIS vision, as well as

an effective organization in place to implement the plan.

- The ICJIS program is off to a good start and has initiated critical program planning and system engineering activities required to make ICJIS implementation feasible.

Having laid the programmatic groundwork, the ICJIS program now requires funding commitment and support to proceed with further planning and implementation activities.

The ICJIS program recommends the following major decisions and actions by key players in the Virginia decision-making community:

- Discretionary state grant funding should be allocated and authorized during the next budget biennium to complete the planning and system engineering tasks begun in Phase 1.
- Agencies that may be potentially affected by ICJIS implementation should become (or remain) actively involved in ongoing planning and system engineering activities.
- Executive, legislative, and judicial decision-makers should be planning to support ICJIS implementation funding requests in the next two budget biennia.

The key to the success of any major multi-agency project is the committed support of decision-makers with the responsibility to promote strategic objectives. Given that commitment, and adequate resources to do the job, ICJIS promises to be an ultimate win-win for all parties involved.

Requests for additional information, including copies of the full ICJIS Business Case, should be directed to the ICJIS program office.

ICJIS Business Case Executive Summary

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